

**BY ORDER OF THE
SUPERINTENDENT**

**HQ UNITED STATES AIR FORCE
ACADEMY INSTRUCTION 33-119**



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Communications and Information

***INFORMATION TECHNOLOGY SERVICE
OPERATIONS MANAGEMENT***

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This instruction establishes Information Technology (IT) Service Operations Management as a key Air Force Academy Information Technology Governance process. It implements DoD Directive (DoDD) 8000.01, *Management of the DoD Information Enterprise*, Air Force Policy Directive (AFPD) 33-1, *Command, Control, Communications, and Computer (C4) System*, Air Force Instruction (AFI) 33-101, *Commanders Guidance and Responsibilities*, AFI 33-150, *Management of Communications Activities*, Technical Order (TO) 00-33A-1001, *General Communications Activities Management Procedures and Practice Requirements*, and the Department of Defense Information Technology Infrastructure Library (D-ITIL). This publication does not apply to Air Force Reserve Command (AFRC) units and the Air National Guard (ANG). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) Form 847, *Recommendation for Change of Publication*. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the AF Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. See Attachment 1 for a glossary of references and supporting information.

1. Scope.

1.1. This instruction applies to IT systems, services, assets, applications, programs, and components in use at the United States Air Force Academy (USAFA), except those specifically excluded by USAFA/A6.

1.1.1. Requests for exceptions to this policy must be submitted through the Change Management Process (see USAFA Instruction (USAF AI) 33-116, *Information Technology Change Management*). If approved by the Change Advisory Board (CAB), exceptions will be sent to USAFA/A6 for approval.

1.1.2. Approved exceptions will be listed in the USAFA IT Service Catalog (see USAFAI 33-101, *USAFA Information Technology Governance*).

2. Purpose.

2.1. This instruction establishes IT Service Operations Management at USAFA.

2.2. This instruction provides guidance and procedures that personnel must use to manage all USAFA IT services.

3. Process and Function Descriptions.

3.1. Request Fulfillment.

3.1.1. Request fulfillment is the process for handling and implementing requests for standard IT services. Service requests are the many standard IT demands by typical users (e.g., password resets, new accounts, etc.). The USAFA IT Service Catalog lists standard items per USAFAI 33-101. Nonstandard requests are handled via the Change Process outlined in USAFAI 33-116.

3.1.2. The 10th Communications Squadron (10 CS) develops and maintains the Request Fulfillment Process.

3.1.3. All IT service requests are submitted to the USAFA IT Service Desk which is responsible for ensuring requests are fulfilled.

3.1.4. The Request Fulfillment Process includes five steps:

3.1.4.1. Request Identification – Common methods for initiating a service request include, but are not limited to, a phone call, e-mail, or personal visit to the USAFA IT Service Desk. The USAFA IT Service Catalog explains the procedures to submit service requests.

3.1.4.2. Request Logging – All service requests are logged, tracked, and date/time stamped. A service request ticket is opened with relevant information such as user information and description of the request. The ticket is then routed appropriately for fulfillment or reviewed for other approval considerations (e.g., funding, information assurance, etc.).

3.1.4.3. Request Approval – In some cases formal approval may be required when funding, compliance, or other issues are involved. The Request Fulfillment Process includes the ability to define and track required approvals.

3.1.4.4. Fulfillment – The actual fulfillment activity will depend on the nature of the service request. The USAFA IT Service Desk will complete the request or forward it to the appropriate office for action.

3.1.4.5. Request Closure – After the request is fulfilled, the users are given a period of time (detailed in appropriate Service Level Standards (SLSs) and/or Service Level Agreements (SLAs)) to confirm the success of the request. Requests are closed when

the users concur, or are closed automatically after the period of time passes without input.

3.2. Event Management.

3.2.1. An event is defined as any detectable or discernible occurrence that impacts IT infrastructure or the delivery of IT service. Events are typically notifications created by an IT service, Configuration Item (CI), or monitoring tool. Event Management is the process that monitors all events occurring on the USAFA IT infrastructure, evaluates the impact of the event to USAFA services, and escalates exception conditions.

3.2.2. The 10 CS develops and maintains the Event Management Process.

3.2.3. The USAFA Network Management function is responsible for Event Management.

3.2.4. Event Management will monitor the performance and availability of USAFA IT services IAW AFI 33-115V1, *Network Operations (NETOPS)*.

3.2.5. Event Management develops and maintains event monitoring tools. The monitoring tools will:

3.2.5.1. Identify exact targets and mechanisms for monitoring.

3.2.5.2. Define what can be monitored.

3.2.5.3. Define what needs to be monitored.

3.2.5.4. Define what type of monitoring is required.

3.2.5.5. Define what data will be used to populate the appropriate event record.

3.3. Incident Management.

3.3.1. An incident is defined as an unplanned interruption to an IT service or reduction in the quality of an IT service. Incident Management is the process for handling all incidents. The primary goal of Incident Management is to restore normal service operations as quickly as possible and to minimize adverse impact on the users and mission.

3.3.2. The 10 CS develops and maintains the Incident Management Process.

3.3.3. The Incident Management Process includes nine steps:

3.3.3.1. Incident Identification – Common methods for the USAFA IT Service Desk to identify an incident include, but are not limited to: phone calls, e-mails, walk-ins, and internal system alerts.

3.3.3.2. Incident Logging – All incidents are logged, tracked, and date/time stamped. An incident ticket (e.g., trouble ticket) includes relevant information such as user information and a description of symptoms.

3.3.3.3. Incident Categorization – An incident is appropriately categorized by the USAFA IT Service Desk based on the services, systems, or applications impacted.

3.3.3.4. Incident Prioritization – Incidents are assigned priority codes based upon urgency and impact. If the incident is both high impact and high urgency, it meets the

definition of a Critical Incident. Based on this determination, the incident is appropriately routed IAW 10 CS Incident Escalation Policy.

3.3.3.4.1. The USAFA IT Service Desk Manager reviews and ensures incidents are assigned correct urgency and impact, and are correctly prioritized.

3.3.3.4.2. Impact and urgency shall be defined and facilitated based on appropriate Service Level Standards (SLSs), Service Level Agreements (SLAs), etc. (See USAFAI 33-101 for more details on SLSs and SLAs.) Urgency addresses how quickly the issue needs to be resolved. Urgency values are High, Medium, and Low. Impact addresses mission criticality and/or how many users are affected. Impact values are High, Medium, and Low.

3.3.3.4.3. Priority codes are determined IAW current INOSC 690 NSG Spin. These values are Critical, High, Medium, and Low.

3.3.3.5. Initial Diagnosis – The incident is diagnosed by the USAFA IT Service Desk to discover the full extent of the symptoms, assess the situation, and attempt to resolve the incident.

3.3.3.6. Escalation – If the USAFA IT Service Desk is unable to resolve the incident within a defined time period (based upon SLSs and/or SLAs), the incident will be escalated IAW the 10 CS Incident Escalation Policy.

3.3.3.7. Investigation and Diagnosis – An in-depth investigation of the incident is performed and information is annotated within the incident ticket.

3.3.3.8. Resolution and Recovery – Recovery actions restore service as soon as practical. The USAFA IT Service Desk then notifies the users when the issue is resolved.

3.3.3.9. Incident Closure – After the incident is resolved, the users are given a period of time (detailed in the Service Catalog) to confirm the success of the resolution. Incidents are closed when the users concur or closed automatically after the period of time passes without input.

3.4. Problem Management.

3.4.1. A problem is defined as the unknown cause of one or more incidents. The primary goal of the Problem Management Process is to prevent problems and resulting incidents from occurring, to eliminate recurring incidents, and to minimize the impact of incidents that cannot be prevented.

3.4.2. The 10 CS develops and maintains the Problem Management Process.

3.4.3. The Service Operations Manager assigns a problem manager and team as appropriate to resolve problems as they arise.

3.4.4. The problem manager determines the resolution of the problem, and ensures the resolution is implemented through the appropriate control procedures (e.g., Change Management, Configuration Management, etc.).

3.4.5. All problems are recorded as a problem record, and relate associated incident records.

3.4.6. Problems are categorized based on the services, systems, or applications impacted.

3.4.7. For each problem, the problem manager reviews and ensures problems are assigned correct urgency and impact, and are correctly prioritized.

3.5. USAFA IT Service Desk.

3.5.1. The USAFA has a single IT Service Desk which is operated and maintained by the 10 CS as part of the Communications Focal Point (CFP). The USAFA IT Service Desk shall:

3.5.1.1. Receive, log, and route service requests and incidents as appropriate for the .EDU and .MIL networks.

3.5.1.2. Be reachable by a single phone number and a single website/e-mail.

3.5.1.3. Perform initial investigation and resolution of events that result in incidents.

3.5.1.4. Escalate incidents to the appropriate IT operations team IAW the 10 CS Incident Escalation Policy.

3.5.1.5. Communicate appropriately with users and perform customer satisfaction surveys.

3.5.2. The USAFA IT Service Desk Manager ensures policies and procedures are maintained and followed by USAFA IT Service Desk staff. The USAFA IT Service Desk Manager shall:

3.5.2.1. Ensure incidents are closely monitored and, when necessary, escalate IAW 10 CS Incident Escalation Policy.

3.5.2.2. Ensure all incidents are properly recorded to provide situational awareness, accurate record keeping, and metric analysis.

3.5.2.3. Ensure incidents have a unique record identifier used to track, query, and receive customer feedback during the lifecycle of the incident.

3.5.2.4. Ensure incident tickets are updated throughout the lifecycle of the incident.

3.5.2.5. Ensure incidents are categorized based on the services, systems, or applications impacted.

3.5.2.6. Ensure standards for resolving incidents (e.g., time, quantity, etc.) as defined within SLSs and/or SLAs are met.

3.5.2.7. Ensure guidelines for escalating incidents are followed IAW the 10 CS Incident Escalation Policy.

3.5.2.8. Ensure resolved Incidents are followed up with appropriate user notifications (e-mail, phone call, etc.) and customer satisfaction surveys for metric analysis.

3.5.2.9. Ensure all resolved incidents are verified for completeness and accuracy.

4. USAFA Organizational Responsibilities.

4.1. Director, Communications & Information (USAFA/A6) will:

4.1.1. Review and approve the implementation of Service Operations Management processes outlined in this instruction.

4.1.2. Maintain governance and oversight for development, implementation, performance, and continual improvement of IT Service Management processes.

4.1.3. Report appropriate metrics to USAFA Superintendent (see Attachment 2).

4.2. Director, 10th Communications Squadron (10 CS/CL) will:

4.2.1. Deliver baseline USAFA IT services.

4.2.2. Develop and maintain the USAFA IT Service Desk function as part of the CFP.

4.2.3. Develop and maintain the Request Fulfillment Process.

4.2.4. Develop and maintain the Event Management Process.

4.2.5. Develop and maintain the Incident Management Process.

4.2.6. Develop and maintain an Incident Escalation policy.

4.2.7. Assign a USAFA IT Service Desk Manager.

4.2.8. Report appropriate metrics to USAFA/A6 (see Attachment 2).

4.3. All USAFA IT Customers will:

4.3.1. Submit all IT Service Requests to the USAFA IT Service Desk.

4.3.2. Submit all IT Incidents to the USAFA IT Service Desk.

MICHAEL C. GOULD, Lt Gen, USAF
Superintendent

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 33-101, *Commanders Guidance and Responsibilities*, 18 November 2008

AFI33-115V1, *Network Operations (NETOPS)*, 24 May 2006

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 33-1, *Information Resources Management*, 27 June 2006

DoDD 8000.01, *Management of the Department of Defense Information Enterprise*, 10 February 2009

Department of Defense Information Technology Infrastructure Library (D-ITIL)

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

ANG—Air National Guard

CAB—Change Advisory Board

CI—Configuration Item

CFP—Communications Focal Point

IT—Information Technology

OPR—Office of Primary Responsibility

RDS—Records Disposition Schedule

SLAs—Service Level Agreements

SLSs—Service Level Standards

USAFA—United States Air Force Academy

Attachment 2

USAFI SERVICE OPERATIONS METRICS EXAMPLES

Table A2.1. Incident Management.

Critical Success Factors	Key Performance Indicators
Ability to resolve incidents efficiently	Number of incidents reopened (when the incident reoccurs after closure) as a percentage of the total
	Average time (hours) to resolve incidents by priority
Ability to maintain IT service quality	Number of incidents reported in a period
	Number of incidents not resolved within target time by priority
	Number of Critical/High Priority Incidents
Ability to improve IT and customer productivity	Percentage of incidents handled within agreed response time
	Percentage of incidents resolved by Service Desk / 1 st Line support (first call resolution)
Ability to maintain user/customer satisfaction	Ratings on customer satisfaction surveys
Adequate staffing of Service Desk resources to support customer interactions (calls, web, e-mail, other)	Percentage of calls that come in via the web/e-mail or other method (for Continual Service Improvement)

Table A2.2. Request Fulfillment.

Critical Success Factors	Key Performance Indicators
Ability to fulfill service requests efficiently and effectively	Number of service requests in a period (as a control measure)
	Size of the current backlog of outstanding service requests
	Average time for approval, fulfillment, and closure handling for each category of service request
	Number and percentage of service requests completed within agreed target times